



UNITED STATES PATENT AND TRADEMARK OFFICE

cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,635	03/23/2004	Gregory I. Rozman	67010-095; B05799-ATI	2588
26096 7590 10/31/2007 CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			EXAMINER GLASS, ERICK DAVID	
			ART UNIT 2837	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

MAILED
OCT 31 2007
GROUP 2800

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/806,635
Filing Date: March 23, 2004
Appellant(s): ROZMAN ET AL.

Rozman, Gregory
Lapointe, Richard
Parsons, Douglas
For Appellant

EXAMINER'S ANSWER

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.
This is in response to the appeal brief filed 7/5/2007 appealing from the Office action
mailed 10/23/2006.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,992,721	Latos	2-1991
5,574,345	Yoneta	11-1996
6,426,608	Amano et al.	6-2002
2004/0008527	Honda	1-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Latos (4,992,721) in view of Yoneta et al. (5,574,345).

With respect to claims 1, 9, and 16, Latos discloses a system and method for controlling the system, comprising: a permanent magnet motor (Fig. 2, #22); a first phase controlled rectifier that selectively couples the motor to a power source for providing power to the motor during an engine starting operation (Fig. 2, #26 a permanent magnet motor that is coupled with an engine so that selectively couples the motor #22 to 3-phase power) and the permanent magnet motor is coupled with the engine and rotate simultaneously (Fig. 2, #22 and #12 move simultaneously; see also col. 3, lines 40-62). With respect to claim 16, Latos also discloses a power converter (fig. 2, 32) and a gas turbine engine (col. 3, lines 43-44; jet engine is interpreted as a gas turbine).

Latos does not disclose a second rectifier.

Yoneta et al. discloses a second rectifier circuit (fig. 3, #4). Implementing the rectifier circuit with the inverter circuit of Latos (Fig. 2, #32) makes the Latos system

Art Unit: 2837

have a second rectifier that couples the motor (Fig. 2, #22) to a load (Fig. 2, #16). The motivation to use a second rectifier is to rectify the ac regenerative power being supplied back.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to implement into the Latos system a second rectifier, thereby providing the advantage of using the inverter already in the circuit to rectify the regenerative power being supplied back, as taught by Yoneta et al. (column 2, lines 47-51).

With respect to claims 2, 10, and 17, Latos does not teach were the rectifiers alternatively conducting. Yoneta et al. discloses the first and second rectifiers controlled so that one is conducting while the other is off (column 4, lines 25-32). It would have been obvious to one having ordinary skill in the art to implement alternately conducting rectifiers into the circuit of Latos to allow the second rectifier to rectify the ac regenerative power being supplied back from the motor, with power failure of the ac power source, as taught by Yoneta et al. (column 4, lines 25-31).

With respect to claims 3 and 11, Latos discloses a power converter associated with the first rectifier that converts power from the source to a variable voltage (Fig. 2, #32 supplies variable voltage to #22 for starting the engine).

With respect to claims 4 and 12, Yoneta et al. disclose a dc link capacitor bank (Fig. 3, 3). It would have been obvious to one having ordinary skill in the art at the time of the invention to implement a capacitor across the dc link circuitry of Latos, to provide a smoothing the transferred signal as taught by Yoneta et al.

With respect to claims 5, 13, and 14, Yoneta et al. disclose the second phase controlled rectifier (fig. 3, 4). A rectifier inherently converts three-phase power into a constant DC voltage. Adding a rectifier to the circuit of Latos make the inverter of Latos the power converter (fig. 2, #32). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to implement into the Latos system a rectifier, thereby providing the advantage of rectifying the regenerative power supplied back, as taught by Yoneta et al (column 2, lines 47-51).

With respect to claims 6, 15, 19, and 20, Latos discloses a filter between the inverter and the load, where the filter provides a selected quality of power to the load (Fig. 2, #34).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Latos and Yoneta et al; as applied to claims 1, 5, and 6 above, and further in view of Honda (2004/0008527).

Latos and Yoneta et al. do not disclose the filter comprising a differential mode filter in series with a common mode filter. Honda discloses a differential mode filter in series with a common mode filter (Fig. 7, #70). The motivation to use both filters in series is to filter both the differential mode noise and the common mode noise ([0051]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that the filter of Latos and Yoneta et al. would include differential and common mode filters, respectively, thereby providing the advantage of filtering differential mode noise and common mode noise, as taught by Honda.

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Latos (4,992,721) in view of Yoneta et al. (5,574,345) and in further view of Amano et al. (6,426,608).

With respect to claims 8 and 18, Latos, and Yoneta et al. do not disclose a pulse width modulating converter. Amano et al. teaches a pulse width modulating converter (fig. 1, 8). It is obvious to one having ordinary skill in the art at the time of the invention to implement a PWM converter in the circuit of Latos and Yoneta et al, to provide the advantage to changing the control system to digital to receive a more reliable signal as taught by Amano et al.

(10) Response to Argument

With respect to claims 1, 9, and 16

The appellant first argues the proposed motivations would defeat the intended use of the first reference, Latos. Latos mentions nothing about the criticality of his ac output bus. Neither is the ac output bus of the appellant mentioned in the claim language. Latos accomplishing all the requirements of the appellants claimed device. Adding a second rectifier in between the converter and inverter of Latos would not change the output of Latos reference, acting as the inverter/rectifier (fig. 3,4) does in the Yoneta reference. Only one of the rectifiers alternately conducts (claim 2). The first rectifier from the power side is shut down, to alternatively work with the second rectifier.

The appellant second argument is that a second rectifier would be redundant since Latos already has a rectifier, and serve no purpose. The examiner respectfully

Art Unit: 2837

disagrees. It would be converter the power which is later converted again, to smooth and stabilize the power. Just as Latos, Yoneta, and the appellant's devices, all currently do.

With respect to claims 7, 8, and 18

The appellant simply argues that there would be no motivation for a third reference, since the 35 U.S.C. 103 (a) combination of the independent claims (1,9,16) is improper to begin with. The examiner respectfully disagrees.

With respect to claim 7, it would have been obvious to one having ordinary skill in the art at the time of the invention that the filter of Latos and Yoneta et al. would include differential and common mode filters, respectively, thereby providing the advantage of filtering differential mode noise and common mode noise, as taught by Honda.

With respect to claim 8 and 18, it is obvious to one having ordinary skill in the art at the time of the invention to implement a PWM converter in the circuit of Latos and Yoneta et al, to provide the advantage to changing the control system to digital to receive a more reliable signal as taught by Amano et al.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Erick Glass



Conferees:

Lincoln Donovan 

Darren Schuberg 



LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER